

Work Order ID 84807

\*84807\*

Page 1

May-23-12 11:32:51 AM

Item ID: D2721-041

Accept

\*N900040100\*

Setup Start \*NS1\*

Revision ID:

Stop \*NS2\*

Item Name: 206B Step Assembly

Start Date: 23/05/2012 Start Qty: 3.00

\*3\*

Cust Item ID:

Required Date: 06/06/2012 Req'd Qty: 3.00

\*3\*

Customer:

Reference:

Approvals: Process Plan: MLJDate: 12/05/23

Tooling:

Date:

Run Start \*NR1\*

QC:

Date:

SPC (Y/N):

Date:

Stop \*NR2\*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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Draw Nbr

Revision Nbr

D2721

Rev C

100

0.00

\*100\*

Large Fab

Large Fab

Memo

0.00

Large Fab

Cut D2721-1 using D2622 extrusion as per Dwg D2721  
Deburr and bevel ends for welding3 Ø Ae  
12.06.12

110

0.00

\*110\*

Large Fab

Large Fab

Memo

0.00

Large Fab

Weld end cap (One End Only) and lugs as per Dwg D2721 using Jig DT  
followed by Jig DTA/R AL Rod Batch: 120854

Grind end cap welds flush

3 Ø AE  
12.06.20Ae  
12.06.25

**Dart Aerospace Ltd**

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_  
 QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
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**NOTE:** Date & initial all entries

**\*84807\***

Page 2

**Accept**

**\*N900040100\***

Setup Start \*NS1\*

Stop \*NS2\*

**Cust Item ID:**

**Start Date:** 23/05/2012    **Start Qty:** 3.00

\*3\*

**Customer:**

**Required Date: 06/06/2012      Req'd Qty: 3.00**

\*3\*

**Reference:**

**Approvals:** \_\_\_\_\_ **Process Plan:** \_\_\_\_\_ **Date:** \_\_\_\_\_ **Tooling:** \_\_\_\_\_ **Date:** \_\_\_\_\_

Run Start \*NR1\*

QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_

Stop \*NR2\*

### Operation Description

### Set Up/ Run Hours

Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
---------	--------	-----------	------------	------------	---------------	-------------

120

QC9- Inspect visual per QSI004- Fusion Welds

0.00

**\*120\***

QC

## Memo

0.00

## Quality Control

130

QC5- Inspect part completeness to step on W/O

0.00

**\*130\***

QC

## Memo

0.00

## Quality Control

140

Chemical Conversion Coat per QSI005 4.1

0.00

**\*140\***

## HandFinish

## Memo

0.00

## Hand Finishing

**Dart Aerospace Ltd**

W/O:		WORK ORDER CHANGES					
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 Required Date: 06/06/2012 Req'd Qty: 3.00 **\*3\*** Customer:  
 Reference:

Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_ Run Start **\*NR1\***  
 QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_ Stop **\*NR2\***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
150	QC3- Inspect Part Finish	0.00				3	0		<i>K</i>
<b>*150*</b>									
QC	Memo	0.00							12-06-27
Quality Control									
160		0.00				3	0		<i>K</i>
<b>*160*</b>	Large Fab								
Large Fab	Memo	0.00							12-06-27
Large Fab	Inspect for foreign object per QSI 024								
	Weld Remaining end cap as per Dwg D2721 using Jig DT followed by								
	Jig DT								<i>Ae</i>
	A/R AL Rod Batch: <u>1120854</u>								12-07-03
	Grind End Cap Welds Flush								

**Dart Aerospace Ltd**

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 Reference:

Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_ Run Start **\*NR1\***  
 QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_ Stop **\*NR2\***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
170 <b>*170*</b> QC Quality Control	QC10- Inspect visual per QSI004- ground welds  Memo	0.00 0.00		51269103					
180 <b>*180*</b> QC Quality Control	QC5- Inspect part completeness to step on W/O  Memo	0.00 0.00		51269103		43	44		
190 <b>*190*</b> HandFinish Hand Finishing	Chemical Conversion Coat per QSI005 4.1  Memo	0.00 0.00				3	26	12-73	

Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_  
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Start Date: 23/05/2012 Start Qty: 3.00

\*3\*

Cust Item ID:

Required Date: 06/06/2012 Req'd Qty: 3.00

\*3\*

Customer:

Reference:

Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_  
QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_

Run Start \*NR1\*

Stop \*NR2\*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
200	White Gloss(Ref:4.3.5.1) per QSI005 4.3-Alum	0.00							
*200*									
Powdercoat									
Powder Coating									
	Memo								
	START TIME: 8:30	0.00							
	OVEN TEMPERATURE: 320								
	FINISH TIME: 9:00								
210	QC3- Inspect Part Finish	0.00							
*210*									
QC									
Quality Control	Memo	0.00							
220	Wing Walk as per dwg QSI005 4.4 Batch 121613	0.00							
*220*									
HandFinish									
Hand Finishing	Memo	0.00							

Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

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Revision ID:  
Item Name: 206B Step Assembly

Accept

**\*N900040100\***

Setup Start **\*NS1\***

Stop **\*NS2\***

Start Date: 23/05/2012 Start Qty: 3.00 **\*3\***  
Required Date: 06/06/2012 Req'd Qty: 3.00 **\*3\***

Cust Item ID:  
Customer:

Reference:

Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_  
QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_

Run Start **\*NR1\***

Stop **\*NR2\***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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230 QC3- Inspect Part Finish 0.00

**\*230\***

QC

Memo

0.00

Quality Control

*12/7/11 (3)*

240 Identify as per dwg & Stock Location: \_\_\_\_\_ 0.00

**\*240\***

Packaging

Memo

0.00

Packaging

*P10 84805*

*12/9/11 (3)*

250 QC21- Final Inspection - Work Order Release 0.00

**\*250\***

QC

Memo

0.00

Quality Control

*12/7/11*

*P120711*

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
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# Picklist Print

May-23-12 11:32:56 AM

Page 1

Work Order ID: 84807

\*84807\*

Parent Item: D2721-041

\*D2721-041\*

Parent Item Name: 206B Step Assembly

Start Date: 23/05/2012

Required Date: 06/06/2012

Start Qty: 3.00

Required Qty: 3.00

Comments: IPP Rev:F As Per Ecn 766 06-01-06 JLM IPP Rev:G add wing  
walk DD 10.02.24 verified by:EC

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
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D2622-120C Manufactured No

100

Each

35 6100

1

3

\*D2622-120C\*

Step Extrusion

\*\*

883894 (x3) Ac 12.06.12

Location	Loc Qty	Loc Code
HALL	16.37	
46910	2	
64409	6	
66970	7.7	
68293	0.25	
72131	0.42	
WA	9.88	
81507	9.88	
WA013	9.36	
75781	2	
77612	7.36	

D2734 Manufactured No

110

Each

51.0000

1

3

\*D2734\*

Step End Plate

\*\*

12.06.19

Location	Loc Qty	Loc Code
WA	51	
76985	5	
80682	16	
83322	30	

3

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

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May-23-12 11:32:56 AM

Page 2

Work Order ID: 84807

\*84807\*

Parent Item: D2721-041

\*D2721-041\*

Parent Item Name: 206B Step Assembly

Start Date: 23/05/2012

Required Date: 06/06/2012

Start Qty: 3.00

Required Qty: 3.00

D3461-1 Manufactured No

110 Each

45.0000 1 3

\*D3461-1\*

Mounting Plate

\*\*

*12.06.19*

Location

Loc Qty

Loc Code

WA003

45

58756

45

3

D3461-3 Manufactured No

110 Each

2.0000 1 3

\*D3461-3\*

Mounting Plate

\*\*

*12.06.19*

Location

Loc Qty

Loc Code

WA017

2

41601

2

31  
2

D3461-5 Manufactured No

110 Each

18.0000 1 3

\*D3461-5\*

Mounting Plate

\*\*

*12.06.19*

Location

Loc Qty

Loc Code

WA017

18

33862

18

3

D3461-7 Manufactured No

110 Each

20.0000 1 3

\*D3461-7\*

Mounting Plate

\*\*

*12.06.19*

Location

Loc Qty

Loc Code

WA017

20

33863

20

3

May-23-12 11:32:56 AM

Shop Packet Print

Page 2

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

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Page 3

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Parent Item: D2721-041

\*D2721-041\*

Parent Item Name: 206B Step Assembly

Start Date: 23/05/2012

Required Date: 06/06/2012

Start Qty: 3.00

Required Qty: 3.00

D2734

Manufactured No

160

Each

51.0000

1

3

\*D2734\*

Step End Plate

\*\*

*12.06.27*

Location

Loc Qty

Loc Code

WA

*884563*

51

76985

5

80682

16

83322

30

*3*

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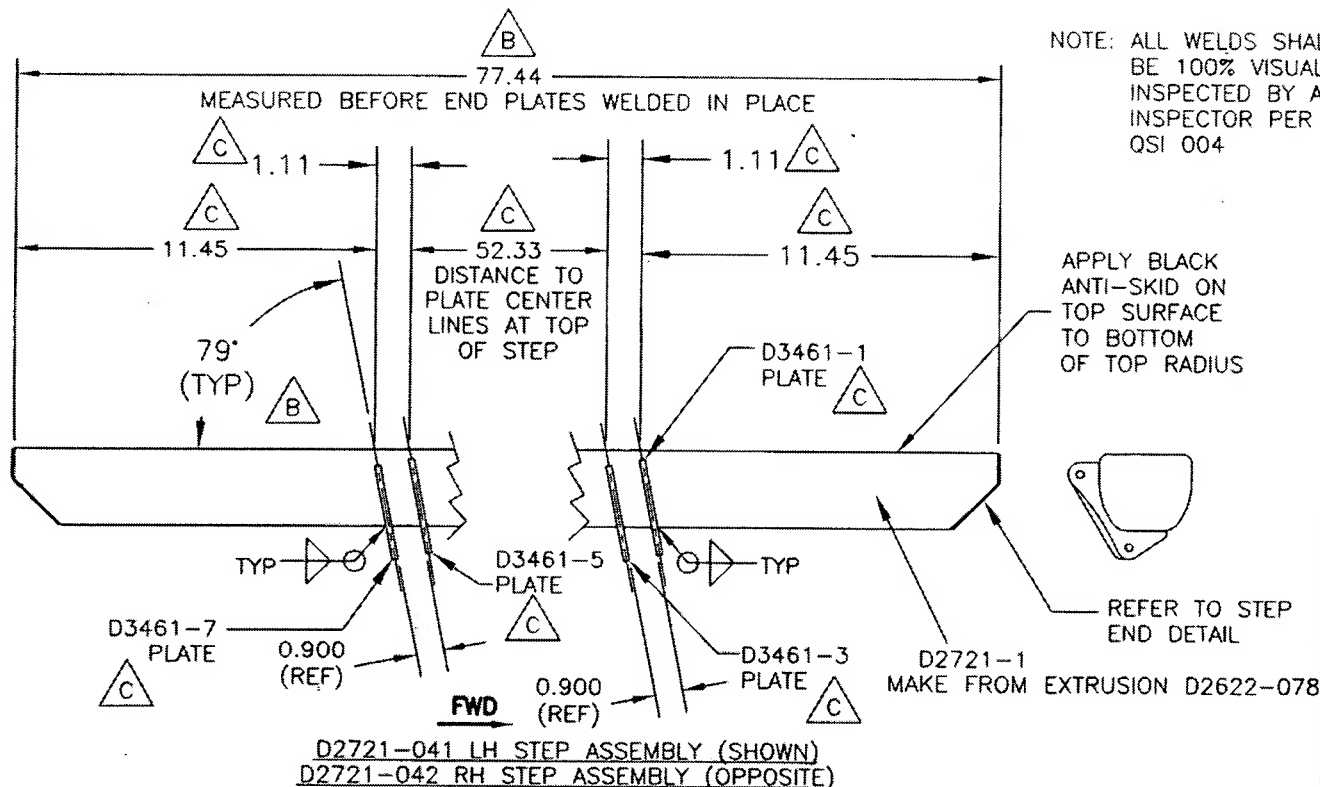
**NOTE:** Date & initial all entries

**DART**

RELEASED

05.11.14

NOTE: ALL WELDS SHALL  
BE 100% VISUALLY  
INSPECTED BY A QUALIFIED  
INSPECTOR PER DART  
QSI 004



D2721-041 LH STEP ASSEMBLY (SHOWN)  
D2721-042 RH STEP ASSEMBLY (OPPOSITE)

ROUND CORNER OF EXTRUSION TO  
MATCH BEND RADIUS OF END PLATE

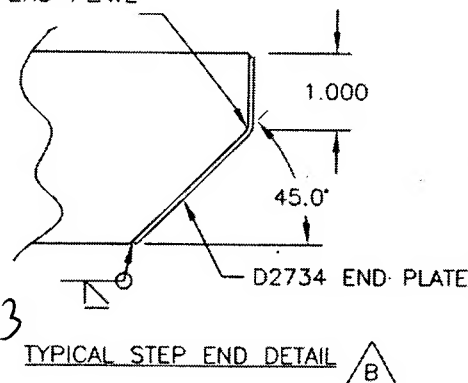
#### D2721-041/-042 STEP ASSEMBLY PARTS LIST

QTY	QTY	PART NUMBER	DESCRIPTION
-041	-042		
X	X	D2721-041	LH STEP ASSEMBLY
		D2721-042	RH STEP ASSEMBLY
1	1	D2622-078	EXTRUSION
2	2	D2734	END PLATE
1	1	D3461-1	PLATE
1	1	D3461-3	PLATE
1	1	D3461-5	PLATE
1	1	D3461-7	PLATE

#### D2721-041/-042 STEP ASSEMBLY

- 1) MAKE FROM EXTRUSION D2622
- 2) WELD PER DART QSI 004
- 3) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1  
POWDER COAT ASSEMBLY WHITE (4.3.5.1) PER DART QSI 005 4.3  
APPLY BLACK ANTI-SKID PAINT PER DART QSI 005 4.4
- 4) ALL DIMENSIONS ARE IN INCHES
- 5) ALL TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED

SHOP COPY  
RETURN TO  
ENGINEERING  
UNCONTROLLED COPY  
SUBJECT TO AMENDMENT  
WITHOUT NOTICE  
WORK ORDER  
NO. 84807 MLW  
12/05/23



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DESIGN	PH	DRAWN BY	PH	DART AEROSPACE USA, INC.
CHECKED	PH	APPROVED	PH	PORT HADLOCK, WA
DATE	05.09.19	TITLE	D2721	RE-DESIGN, ADD D3461-1/-3/-5/-7
05.09.19		206B STEP ASSEMBLY		
		NEW ISSUE		
		79° WAS 80°, UPDATED WELD DETAIL		
		REVISED TOLERANCES, 53.44 WAS 54.0		
		SCALE		
		NIS		
		SHEET 1 OF 1		

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